

Poseidon Cruise 527 to Goldeneye region in North Sea

Weekly report 2, 28.8.2018

Cruise aims

The Poseidon 527 cruise to the Goldeneye region in the North Sea forms an important component of the European Union Horizon2020 project STEMM-CCS. The overall aim of STEMM-CCS is to deliver new insights, guidelines for best practice, and tools for all phases of the CO₂ storage cycle at offshore Carbon Capture and Storage (CCS) sites.

Excellent progress

In week 2 of the cruise, we started with a personnel transfer in Aberdeen in order to drop of Catherine Wardell (our multi-beam expert, NOC) and Thomas Lehmann (Develogic technician), and take on board Emily Davey (chemistry technician, NOC) and Martin Arundel (electronics engineer, NOC). We also used the time in Aberdeen to obtain spare parts for the box corer.

The next few days were reasonably calm and we were able to conduct a host of scientific activities, with 24 box cores and 6 CTD casts. In addition, we deployed and retrieved the MPI lander on a daily basis which started to deliver oxygen and DIC fluxes using eddy-covariance techniques. The technical adjustments to the lander instrumentation improved the performance of the system, and excellent data is now being produced.

The nights have been used to conduct multibeam operations, and the Goldeneye region is now getting very well covered during our cruise. Dirk de Beer and Anna Lichtschlag have been trained by Catherine Wardell to undertake the multibeam work, and have become excellent operators after a good amount of additional self-study.

August 24 and 25 were not so kind to us. The wind and waves did not allow us to undertake box coring, but we still managed to do retrieve and deploy the MPI lander and undertake 2 CTD casts.

Last week of work

Sunday August 26 signalled the last week of our cruise. The weather was fine and we managed to undertake 13 box cores and 2 CTD with also a retrieval and deployment of the MPI lander. Box coring has been taking up a great deal of our time on stations and keeping crew and many scientists/technicians engaged. Saskia Ruhl and Anna Lichtschlag have been excellent at directing the box core operations, which has been a very smooth process.

In the coming days, it looks like the weather forecasts will be kind to us. We plan to do our standard operations, with also gravity coring later this week, before returning back to Kiel on Friday August 31.

Eric Achterberg

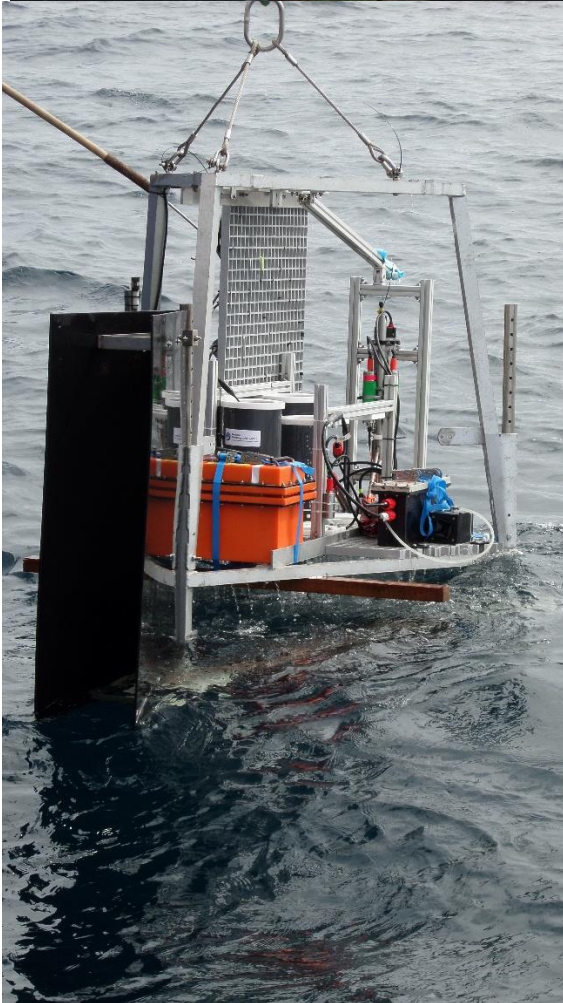


Photo top: sieving of material collected using box corers
Right bottom: retrieval of MPI lander for benthic flux measurements
Photos by Allison Schaap